Contribution of the GFCM to the report of the UN Secretary-General on oceans and the law of the sea, pursuant to General Assembly resolution 78/69 of 5 December 2023, entitled "Oceans and the law of the sea"

Theme for 2026: Marine ecosystem restoration

1. Background

The General Fisheries Commission for the Mediterranean (GFCM) is a regional fisheries management organization (RFMO) of the Food and Agriculture Organization of the United Nations (FAO) tasked with supporting the sustainable development of fisheries and aquaculture in the Mediterranean and Black Sea. The GFCM's commitment to restoring and safeguarding marine ecosystems is anchored in its constitutive Agreement and guided by the GFCM 2030 Strategy. Over the years, the GFCM has adopted over 50 instruments (Recommendations, Resolutions, and Decisions) that explicitly refer to an ecosystem approach to fisheries management. This contribution outlines how, through the federated efforts of its contracting parties and cooperating non-contracting parties, the GFCM continues to advance an ecosystem-based vision that prioritizes the protection of vulnerable habitats, the rebuilding of fish stocks and the long-term resilience of coastal communities.

2. GFCM Basic Texts

The GFCM Agreement positions marine ecosystem restoration as an integral component of the Commission's mandate. The preamble underscores the commitment of the parties to ensuring the long-term conservation and sustainable use of living marine resources and the marine ecosystems on which they depend, while recognizing the duty of States to cooperate in their protection. It further affirms the central contribution of healthy marine ecosystems to sustainable development and blue growth. These principles are reflected in Article 8 on the functions of the Commission, which calls for *inter alia* the minimization of the impacts of fisheries on ecosystems, the implementation of multiannual management plans based on the ecosystem approach to fisheries, and the establishment of fisheries restricted areas (FRAs) for the protection of vulnerable marine ecosystems, including nursery and spawning grounds. These provisions form the bedrock for the GFCM's projects and activities, underpinning its approach to the restoration of marine ecosystems.

3. GFCM 2030 Strategy

Marine ecosystem restoration also stands at the centre of the GFCM's strategic vision, as reflected throughout the GFCM 2030 Strategy. The strategy places the ecosystem approach to fisheries management at its foundation, guiding efforts to rebuild stocks, reduce pressures on biodiversity and strengthen the resilience of marine ecosystems through multiannual, adaptive management plans and science-based harvest rules. It also prioritizes the establishment and effective monitoring of fisheries restricted areas to protect vulnerable marine ecosystems and essential fish habitats, supported by participatory processes that engage fishers as custodians of the sea. Restoration is pursued not only through fisheries management but also through sustainable aquaculture development, including restorative aquaculture practices and nature-based blue farming systems promoted through Aquaculture Demonstration Centres (ADCs). The strategy further advances decarbonization and the reduction of abandoned, lost or otherwise discarded fishing gear, while addressing threats such as climate change and invasive species through regional observatories, adaptation strategies and integrated mitigation measures. Taken together, these actions reflect a comprehensive and forward-

looking commitment to restoring and safeguarding the health and productivity of Mediterranean and Black Sea ecosystems.

4. Programmes, projects and activities

4.1. Fisheries Restricted Areas

FRAs are area-based management tools that play a critical role in advancing marine ecosystem restoration under the GFCM framework. The GFCM's 11 FRAs fosters stock recovery and ecosystem functioning, as demonstrated by the marked rebuilding of key species such as Norway lobster in the Jabuka/Pomo Pit FRA and the broader Adriatic subregion. The deepwater FRA established under Recommendation GFCM/29/2005/1 provides targeted conservation of benthic biodiversity, including coral gardens and deep-sea vulnerable marine ecosystems, through science-based design and ongoing ecological monitoring. By reducing fishing pressure in ecologically sensitive areas and enhancing habitat productivity, the GFCM's FRA network constitutes a cornerstone of regional efforts to restore and maintain healthy, resilient marine ecosystems.

4.2. Multiannual management plans

Multiannual management plans are another mechanism through which the GFCM supports marine ecosystem restoration and the long-term sustainability of Mediterranean and Black Sea fisheries. These plans combine quantitative harvest control rules, effort and catch limits, technical measures and spatial protection to reduce fishing pressure and rebuild stocks within an ecosystem-based framework. Their phased, adaptive design ensures regular monitoring of biological and socioeconomic indicators and allows management measures to be adjusted in response to environmental change and stock status. The effectiveness of this approach is evident across the region: since 2013, average fishing pressure has fallen by roughly 50 percent and biomass has increased by about 25 percent, with notable recoveries in key stocks, including European hake, red mullet and turbot.

4.3. Restorative aquaculture

Restorative aquaculture is a nature-based approach that directly supports marine ecosystem restoration. The expanding cultivation of low-trophic species such as macroalgae, bivalves and sea cucumbers under the stewardship of the GFCM provides vital ecosystem services including water filtration, nutrient recycling and habitat enhancement. Emerging practices such as integrated multitrophic aquaculture further enhance ecological performance by reducing waste and strengthening system resilience. The GFCM's ADCs have been instrumental to these achievements. In fact, the Mediterranean Restorative ADC in La Ràpita, Spain, recently asserted itself as a global leader in developing and disseminating restorative aquaculture and nature-based solutions. The proposed Aquaculture Climate Change Observatory also attests to the potential of restorative aquaculture to contribute to climate adaptation, biodiversity conservation and ecosystem recovery. The GFCM remains committed to mobilizing aquaculture as tool for marine ecosystem restoration, as evidenced by the recent adoption of Resolution GFCM/48/2025/2 promoting restorative aquaculture in allocated marine areas through regionally coordinated guidelines and capacity development.

4.4. Mitigating pollution

The GFCM contributes to marine ecosystem restoration by addressing pollution from the fisheries and aquaculture sectors. Recommendation GFCM/42/2018/11 on the regional marking of fishing gear supports the prevention and reduction of abandoned, lost or otherwise discarded gear. The adoption of a regional roadmap on the decarbonization of fishing activities in the Mediterranean advances efforts to lower emissions and reduce the sector's environmental footprint. Complementing this, Resolution GFCM/46/2023/7 on decarbonization and sustainable feed production in aquaculture strengthens the transition toward low-impact practices. These efforts are supported by technical exchanges, including the Workshop on the Decarbonization of the Fishing Industry, and by extensive awareness-raising activities across the region.

4.5. Managing non-indigenous species

The GFCM addresses the challenge of invasive non-indigenous species through science-based monitoring, regional cooperation and targeted management actions. The GFCM emphasizes the need for reliable data on species distribution and impacts, early warning systems and standardized reporting to support timely responses. The ecological and socioeconomic risks posed by invasive species, including major disruptions to food webs and competition with native species, threaten damage to fisheries and human health alike. In response, GFCM publications have stressed the importance of coordinated regional measures, strengthened enforcement and protection of key habitats such as *Posidonia* meadows to mitigate impacts and safeguard marine biodiversity across the Mediterranean and Black Sea. In this context, the GFCM has also established a comprehensive regional research programme on blue crab through Recommendation GFCM/42/2018/7, aimed at improving scientific, technical and socioeconomic knowledge to support the management of this non-indigenous species. The programme provides a structured framework for data collection, monitoring and stock assessment, as well as promoting harmonized methodologies and coordinated management responses across the Mediterranean Sea.

4.6. The Fisheries and Ecosystem-Based Management in the Mediterranean and Black Sea projects

Since their launch in 2023, the Fisheries and ecosystem-based management for the Blue Economy of the Mediterranean and the Black Sea (FishEBM MED and BS) projects have been essential to advancing the GFCM's efforts with respect to marine ecosystem restoration. By promoting an ecosystem-based approach to fisheries management, the FishEBM projects strengthen countries' capacity to safeguard biodiversity, integrate emerging monitoring, control and surveillance technologies, and combat illegal, unreported and unregulated fishing. Through their focus on small-scale fisheries, participatory governance, habitat protection and blue-economy solutions, the FishEBM projects help translate the GFCM's strategic vision into concrete actions that reverse overexploitation, restore ecosystem health, and support long-term sustainable fisheries across the region.

5. Publications

The GFCM also regularly promotes the dissemination of knowledge on marine ecosystem restoration through its technical and scientific publications, a non-exhaustive selection of which is presented below:

- The State of Mediterranean and Black Sea Fisheries 2025
- Sustainable aquaculture in the Mediterranean: Restoring ecosystems for food security
- Sea urchin farming in the Mediterranean Sea: The case of *Paracentrotus lividus*

- Farmers of the water: Education toolkit for the Blue Transformation of aquaculture in the Mediterranean and the Black Sea
- Guardians of the sea: Working together to tackle ghost gear
- Sacchi, J. 2021. *Overview of mitigation measures to reduce the incidental catch of vulnerable species in fisheries*. Studies and Reviews No. 100 (General Fisheries Commission for the Mediterranean). Rome, FAO. https://doi.org/10.4060/cb5049en
- Öztürk, B. 2021. *Non-indigenous species in the Mediterranean and the Black Sea*. Studies and Reviews No. 87 (General Fisheries Commission for the Mediterranean). Rome, FAO. https://doi.org/10.4060/cb5949en